

## CLAIMS

1. A retail merchandising apparatus for use with a pallet stackable with merchandise items arranged in multiple layers thereon to form a loaded pallet, the retail merchandising apparatus comprising:

pallet support means for bearing the loaded pallet;

lifting means operatively connected to the pallet support

means for selectively moving the pallet support means between a lowered position and a raised position relative to a floor;

an open-topped housing accommodating the pallet support means and the lifting means mounted therein, the housing having a plurality of upstanding housing walls; and

display means associated with the housing for placing a promotional message within view of a customer;

wherein when bearing a loaded pallet, the pallet support means is selectively positionable within the housing such that a selected portion of the merchandise items carried on the loaded pallet protrudes at least partially from the top of the housing within view of the customer.

2. The retail merchandising apparatus of claim 1 wherein the promotional message is selected from the group consisting of:  
  
    (a) product information; (b) pricing information; (c) promotional offers; and (d) product advertising.
3. The retail merchandising apparatus of claim 1 wherein at least one of the plurality of housing walls presents an outer face forming the display means for carrying a promotional message within view of the customer.
4. The retail merchandising apparatus of claim 3 wherein the outer face carries a promotional message thereon.
5. The retail merchandising apparatus of claim 4 wherein the outer face is substantially planar.
6. The retail merchandising apparatus of claim 3 wherein:  
  
    the housing has four housing walls; and  
  
    at least three of the housing walls have outer faces for carrying promotional messages within view of the customer.
7. The retail merchandising apparatus of claim 6 wherein:  
  
    the housing has four housing walls; and

the housing walls each have an outer face for carrying a promotional message within view of the customer.

8. The retail merchandising apparatus of claim 6 wherein each of the outer faces carries a promotional message within view of the customer.
9. The retail merchandising apparatus of claim 5 wherein the promotional message is embodied in a printed medium.
10. The retail merchandising apparatus of claim 9 further including means for securing the printed medium to the outer face.
11. The retail merchandising apparatus of claim 10 wherein the printed medium is a magnetized film and the securing means includes the outer face being ferric to thereby magnetically secure the magnetized film thereto.
12. The retail merchandising apparatus of claim 1 wherein the display means includes a display panel mounted to at least one of the plurality of housing walls.

13. The retail merchandising apparatus of claim 12 wherein the display panel is selectively detachable from the at least one of the plurality of housing walls.
14. The retail merchandising apparatus of claim 12 wherein the promotional message is embodied in a printed medium.
15. The retail merchandising apparatus of claim 14 wherein the printed medium is interchangeable.
16. The retail merchandising apparatus of claim 14 wherein the display panel includes a frame member for fastening to the at least one of the plurality of housing walls, the frame member having a central cutout therein defining a station for receiving the printed medium therein.
17. The retail merchandising apparatus of claim 16 wherein the frame member has guide means for positioning the printed medium within the station.
18. The retail merchandising apparatus of claim 17 wherein:  
the printed medium is a poster; and

the guide means include a pair of spaced apart guide rail members for engaging opposed edges of the poster.

19. The retail merchandising apparatus of claim 18 wherein each guide rail member has a slot defined therein to receive one edge of the poster.

20. The retail merchandising apparatus of claim 17 wherein:

the printed medium is a poster, the poster having edges defining a quadrilateral outline; and

the guide means include three rails for engaging three contiguous edges of the poster.

21. The retail merchandising apparatus of claim 15 wherein the printed medium is a poster.

22. The retail merchandising apparatus of claim 21 wherein the poster contains a holographic image imprinted thereon.

23. The retail merchandising apparatus of claim 16 wherein the display panel includes a protective exterior panel portion mounted in superimposed relation with the frame member, the exterior panel portion being sized to correspond generally to the frame member.

24. The retail merchandising apparatus of claim 23 wherein the exterior panel portion has substantially opaque margins extending about its periphery, the opaque margins co-operating with one another to define a central viewing window through which the printed medium may be seen.
25. The retail merchandising apparatus of claim 24 wherein:
- the exterior panel portion is hingedly connected to the frame member to allow the exterior panel portion to be moved between an open, non-viewing position and a closed, viewing position;
  - in the open, non-viewing position the station being accessible to permit a printed medium to be placed within the station and to be removed therefrom; and
  - in the closed, viewing position the printed media being disposed in the station ready to be viewed by the customer through the viewing window.
26. The retail merchandising apparatus of claim 25 wherein the frame member is concealed by the opaque margins of the exterior panel portion when the exterior panel portion is in the closed viewing position.

27. The retail merchandising apparatus of claim 26 wherein the display panel further includes a closure member for maintaining the exterior panel portion in the closed, viewing position.
28. The retail merchandising apparatus of claim 27 wherein the closure member is a latch.
29. The retail merchandising apparatus of claim 27 wherein the closure member is a hook-and-eye closure member.
30. The retail merchandising apparatus of claim 27 wherein the closure member includes one of the opposing surfaces of the exterior panel portion and the frame member being magnetic and the other of the opposing surfaces thereof being ferric to thereby magnetically maintain the exterior panel portion in the closed, viewing position.
31. The retail merchandising apparatus of claim 23 wherein the exterior panel portion is fabricated from plexiglass.
32. The retail merchandising apparatus of claim 12 wherein the display panel is four-sided.

33. The retail merchandising apparatus of claim 32 wherein the display panel is substantially rectangular.
34. The retail merchandising apparatus of claim 32 wherein the display panel is substantially square.
35. The retail merchandising apparatus of claim 12 the display panel is an electronic display panel.
36. The retail merchandising apparatus of claim 35 wherein the promotional message is embodied in video format.
37. The retail merchandising apparatus of claim 36 wherein the electronic display panel is chosen from the group consisting of: (a) an LCD screen; and (b) a plasma display screen.
38. The retail merchandising apparatus of claim 37 wherein the promotional message includes an audio component.
39. The retail merchandising apparatus of claim 35 wherein the electronic display panel is interactive.
40. The retail merchandising apparatus of claim 1 wherein the display means includes a holographic projection device.



41. The retail merchandising apparatus of claim 12 wherein:  
the housing has four housing walls; and  
at least two of the housing walls have display  
panels mounted thereto.
42. The retail merchandising apparatus of claim 41 wherein  
each of the housing walls has a display panel mounted  
thereon.
43. The retail merchandising apparatus of claim 1 wherein the  
housing at least four housing walls.
44. The retail merchandising apparatus of claim 43 wherein  
the housing has five housing walls.
45. The housing merchandising apparatus of claim 43 wherein  
when viewed in plan, the housing is hexagonal.
46. The housing merchandising apparatus of claim 43 wherein  
when viewed in plan, the housing is octagonal.
47. The retail merchandising apparatus of claim 1 wherein the  
housing has a front wall, a rear wall disposed opposite  
the front wall and a pair of opposed side walls; the

front wall, the rear wall and the pair of side walls cooperating to form a four-sided enclosure.

48. The retail merchandising apparatus of claim 47 wherein when viewed in plan the housing has a shape selected from the group consisting of: (a) a rectangular shape; and (b) a square shape.

49. The retail merchandising apparatus of claim 47 wherein the front wall is hinged for movement to define an inlet door, the inlet door being moveable between an open position and a closed position; in the open position, the inlet door permitting access to the housing for placement of the loaded pallet therewithin and for removal of an empty pallet therefrom.

50. The retail merchandising apparatus of claim 49 further including locking means mounted to the inlet door operable to maintain the inlet door in the closed position.

51. The retail merchandising apparatus of claim 50 wherein the locking means includes a latch mechanism.

52. The retail merchandising apparatus of claim 49 wherein the apparatus further includes control means associated with the housing for selectively actuating the lifting means, the control means being operable to engage the locking means to maintain the inlet door in the closed position while the lifting means moves the pallet support means.
53. The retail merchandising apparatus of claim 44 further comprising control means associated with the housing for selectively actuating the lifting means, the control means being operable to urge the lifting means to move the pallet support means only when the inlet door is in the closed position.
54. The retail merchandising apparatus of claim 49 wherein when the pallet support means bears a loaded pallet and the inlet door is in the closed position, the housing walls surround the periphery of the pallet support means thereby substantially concealing the pallet and the pallet support means from the customer's view.
55. The retail merchandising apparatus of claim 49 further including ramp means associated with the pallet support means; the ramp means being deployable, when the pallet

support means is moved to the lowered position and the inlet door is in the open position, to facilitate rolling transport of the loaded pallet onto the pallet support means.

56. The retail merchandising apparatus of claim 55 wherein:

the pallet support means has a substantially planar shelf;

the lifting means is operatively attached to the shelf; and

the ramp means includes a ramp member disposed in sliding relation with the shelf; the ramp member being selectively extendable between an out-of-use, stowage position and an in-use, loading position; in the loading position, the ramp member extending downwardly, and away from, the shelf in the direction of the floor to thereby permit a pallet truck carrying the loaded pallet to be rolled onto the shelf from the adjacent floor.

57. The retail merchandising apparatus of claim 56 wherein the ramp means further includes a slot defined between the shelf and the lifting means for locating the ramp member when in the stowage position.

58. The retail merchandising apparatus of claim 57 wherein the lifting apparatus is a scissors lift.
59. The retail merchandising apparatus of claim 55 wherein the ramp means includes a bevelled lip attached to, and projecting from, an edge of the shelf to thereby permit a pallet truck carrying a loaded pallet to be rolled onto the shelf from the adjacent floor.
60. The retail merchandising apparatus of claim 43 wherein the rear wall has an inner panel and an outer panel; the inner panel being spaced from the outer panel to define therebetween a compartment for locating the lifting means therein.
61. The retail merchandising apparatus of claim 60 wherein the lifting means includes hydraulic drive means.
62. The retail merchandising apparatus of claim 60 wherein the lifting means includes pneumatic drive means.
63. The retail merchandising apparatus of claim 60 wherein the lifting means includes mechanical drive means.

64. The retail merchandising apparatus of claim 63 wherein:

the mechanical drive means includes a threaded screw member mounted vertically within the compartment, a nut member connected to the pallet support means for threadingly engaging the screw member, and an electric motor operatively connected to the screw member for rotatively driving the screw member;

whereby, when the screw member is driven by the electric motor the nut member is urged to ride along the screw member to thereby cause the pallet support member to be moved between the lowered position and the raised position.

65. The retail merchandising apparatus of claim 64 wherein the screw member and the nut member co-operatively form a leadscrew.

66. The retail merchandising apparatus of claim 64 wherein the screw member and the nut member co-operatively form a recirculating ball screw.

67. The retail merchandising apparatus of claim 64 wherein the mechanical drive means further includes means for discouraging back driving of the nut member.

68. The retail merchandising apparatus of claim 64 wherein the pallet support means is a substantially planar, cantilevered shelf.
69. The retail merchandising apparatus of claim 68 wherein the shelf includes at least one mounting arm extending through a slot defined in the inner panel to connect the shelf to the nut member.
70. The retail merchandising apparatus of claim 69 wherein the mechanical drive means includes guide means associated with the shelf and the housing for directing movement of the shelf within the housing.
71. The retail merchandising apparatus of claim 70 wherein the guide means includes at least one roller member connected to the shelf and a guide surface formed within the compartment, the roller member being mounted to extend into the compartment to rollingly engage the guide surface therewithin when the shelf is urged to move.
72. The retail merchandising apparatus of claim 1 wherein:  
the pallet support means includes a substantially planar shelf having a plurality of sides, the plurality of sides each having an outermost edge, the outermost

edges of the sides co-operating to define a shelf footprint; and

the lifting means is disposed outside the shelf footprint.

73. The retail merchandising apparatus of claim 72 wherein the shelf is cantilevered.

74. The retail merchandising apparatus of claim 1 wherein:

the pallet support means has a substantially planar shelf having a plurality of sides, the plurality of sides each having an outermost edge, the outermost edges of the sides co-operating to define a shelf footprint; and

the lifting means is disposed substantially within the shelf footprint.

75. The retail merchandising apparatus of claim 74 wherein:

the housing includes a base connected to the housing walls, the base being positionable on a floor;

the lifting means has a scissors lift fixedly secured to the base; and

the underside of the shelf is operatively mounted on the scissors lift.



76. The retail merchandising apparatus of claim 75 wherein the scissors lift has a mechanism chosen from the group consisting of: (a) a double scissors mechanism; and (b) a tandem scissors mechanism.
77. The retail merchandising apparatus of claim 75 wherein the scissors lift is hydraulically driven.
78. The retail merchandising apparatus of claim 75 wherein the scissors lift is pneumatically driven.
79. The retail merchandising apparatus of claim 74 wherein:  
the shelf has four sides; and  
the pallet support means further includes a raised skirt member for partially surrounding a loaded pallet placed on the shelf; the skirt member extending peripherally about the outermost edges of three contiguous sides of the shelf, the outermost edge of the remaining side being free of obstruction to thereby facilitate placement of the loaded pallet onto the shelf.
80. The retail merchandising apparatus of claim 79 wherein one of the housing walls includes an inlet door hinged for movement between an open position and a closed

position; in the open position, the inlet door providing access to the outermost edge of the remaining shelf side.

81. The retail merchandising apparatus of claim 80 further including ramp means associated with the shelf for facilitating rolling transport of the loaded pallet onto the shelf.
82. The retail merchandising apparatus of claim 81 wherein the ramp means includes a bevelled lip attached to, and projecting from, the outermost edge of the remaining shelf side.
83. The retail merchandising apparatus of claim 1 further comprising control means associated with the housing for selectively actuating the lifting means.
84. The retail merchandising apparatus of claim 1 wherein movement of the pallet support means is constrained by any one of: (a) an upper displacement limit; (b) a lower displacement limit; and (c) a maximum load limit.
85. The retail merchandising apparatus of claim 1 wherein the housing includes a base joined to each of the housing walls, the base having feet mounted to the underside

thereof for supporting the housing at a selected height above the floor.

86. The retail merchandising apparatus of claim 85 wherein the feet are self-levelling to accommodate for unevenness in the floor.
87. The retail merchandising apparatus of claim 1 wherein the display means includes at least one display panel mounted to the housing, the at least one display panel being carried at a height above the top of the housing.
88. Use of the retail merchandising apparatus of claim 1 as an end-of-aisle display unit.
89. Use of the retail merchandising apparatus of claim 1 as a mid-aisle display unit.
90. Use of the retail merchandising apparatus of claim 1 as a shelf-mounted display unit.
91. A retail merchandising apparatus for use with a pallet stackable with merchandise items arranged in multiple layers thereon to form a loaded pallet, the retail merchandising apparatus comprising:

pallet support means for bearing the loaded pallet;

lifting means operatively connected to the pallet support

means for selectively moving the pallet support means between a lowered position and a raised position relative to a floor; and

an open-topped housing accommodating the pallet support means and the lifting means mounted therein, the housing having a plurality of upstanding housing walls surrounding the periphery of the pallet support means;

wherein when bearing a loaded pallet, the pallet support means is selectively positionable within the housing such that a selected portion of the merchandise items carried on the loaded pallet protrudes at least partially from the top of the housing within view of a customer, whilst the pallet and the pallet support means remain substantially concealed from the customer's view by the housing walls.

92. A method for merchandising a pallet for retail use, the pallet being stackable with merchandise items arranged in multiple layers thereon to form a loaded pallet, the method comprising the steps of:

placing the loaded pallet on pallet support means contained within a housing;

selectively moving the pallet support means between a lowered position and a raised position relative to a floor such that a selected portion of the merchandise items carried on the loaded pallet protrudes from the top of the housing within view of a customer; and

displaying from the housing a promotional message within view of the customer.

93. The pallet merchandising method of claim 92 wherein the step of placing the loaded pallet includes selectively moving the pallet support means to the lowered position to facilitate placement of the loaded pallet in the housing.
94. The pallet merchandising method of claim 93 wherein the step of placing the loaded pallet further includes moving an inlet door provided on the housing to an open position to thereby permit access to the pallet support means.
95. The pallet merchandising method of claim 94 wherein the step of placing the loaded pallet further includes deploying ramp means mounted within the housing to facilitate rolling transport of the loaded pallet onto the pallet support means.

96. The pallet merchandising method of claim 95 wherein the step of placing the loaded pallet further includes depositing the loaded pallet onto the pallet support means within a footprint defined thereon.
97. The pallet merchandising method of claim 96 further including the step of moving the inlet door to a closed position after the loaded pallet has been placed on the pallet support means.
98. The pallet merchandising method of claim 97 wherein the step of moving the inlet door to a closed position further includes securing the inlet door in the closed position.
99. The pallet merchandising method of claim 95 wherein the step of deploying ramp means includes selectively extending a ramp member to an in-use position.
100. The pallet merchandising method of claim 99 further including the steps of:
- selectively retracting the ramp to an out-of-use position after the loaded pallet has been placed on the pallet support means; and
  - moving the inlet door to a closed position.

101. The pallet merchandising method of claim 100 wherein the step of moving the inlet door to a closed position further includes securing the inlet door in the closed position.

102. The pallet merchandising method of claim 92 wherein the step of selectively moving the pallet support means includes the step of actuating lifting means operatively connected to the pallet support means to cause vertical displacement of the pallet support means within the housing.

103. The pallet merchandising method of claim 102 wherein:

the lifting means includes mechanical drive means having a threaded screw member mounted vertically within a compartment formed within the housing, a nut member connected to the pallet support means for threadingly engaging the screw member, and an electric motor operatively connected to the screw member for rotatively driving the screw member; and

the step of actuating the lifting means includes rotatively driving the screw member with the electric motor to urge the nut member to ride along the screw member to thereby cause the pallet support member to be

moved between the lowered position and the raised position.

104. The pallet merchandising method of claim 92 further including the step of concealing from the customers view the pallet and the pallet support means within the housing.

105. The pallet merchandising method of claim 92 wherein:

the promotional message is embodied in a printed medium; and

the step of displaying a promotional message includes:

attaching a display panel to at least one of the walls defining the housing; and

mounting the printed medium in a station defined within the display panel.

106. The pallet merchandising method of claim 92 wherein the step of displaying a promotional message includes placing a promotional message on at least one of the outer faces of the walls defining the housing.